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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,398	04/10/2002	Shigemi Shioya	12394/1	3286

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WASHINGTON, DC 20005

EXAMINER

MCANULTY, TIMOTHY P

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,398

Applicant(s)

SHIOYA ET AL.

Examiner

Timothy P McAnulty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2002 and 03 July 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11. 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.84(h)(5) because Figure 15 show(s) modified forms of construction in the same view. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 16,18-23,25-37,39, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by UK Patent Application GB 2 234 208 A.

GB 2 234 208 A discloses in figures 1 and 2 an apparatus for absorbing energy comprising an inner shaft; an outer shaft; and a plurality of fine members interposed and press-fit between said inner shaft and said outer shaft.

GB 2 234 208 A also discloses in line 7 of page 11 to line 21 of page 12 a method of assembling and an inherent apparatus for assembling said apparatus for absorbing energy comprising the steps of extending the plurality of fine members along either an outer surface of

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said inner shaft or on inner surface of said outer shaft and press-fitting the outer shaft around the inner shaft wherein said plurality of fine members are plastically deformed.

4. Claims 16,18-23,25-39, and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Breese et al.

Breese et al. discloses an apparatus for absorbing energy comprising an inner shaft; an outer shaft; and a plurality of circular fine members interposed and press-fit between said inner shaft and said outer shaft.

Breese et al. also discloses in lines 43 of column 4 to line 34 of column 5 a method and an inherent apparatus for assembling said apparatus for absorbing energy comprising the steps of extending the plurality of fine members along either an outer surface of said inner shaft or on inner surface of said outer shaft and press-fitting the outer shaft around the inner shaft wherein said plurality of fine members are plastically deformed.

5. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 17,24, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2 234 208 A.

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Regarding claims 17 and 24, GB 2 234 208 A discloses the basic apparatus as previously cited but does not disclose said plurality of fine members having a Vickers Hardness that differs by at least 200 from the Vickers hardness of either said inner shaft or said outer shaft. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide such hardness limitations, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 (CCPA 1955).

Regarding claim 38, GB 2 234 208 A discloses the basic apparatus as previously cited but does not disclose said plurality of fine members being circular. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the plurality of fine members to be circular, since it has been held that lacking any evidence to the contrary, the particular configuration is nothing more than one of numerous configurations one of ordinary skill in the art would find obvious for the purpose of creating an press-fit between the inner shaft and the outer shaft of GB 2 234 208 A. *In re Dailey*, 149 USPQ 47 (CCPA 1976).

8. Claims 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breese et al.

Breese et al. discloses the basic apparatus as previously cited but does not disclose said plurality of fine members having a Vickers Hardness that differs by at least 200 from the Vickers hardness of either said inner shaft or said outer shaft. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide such hardness limitations, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 (CCPA 1955).

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9. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

10. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2 234 208 A in view of Habegger.

GB 2 234 208 A discloses the basic apparatus as previously cited but does not disclose said apparatus for assembly said apparatus for absorbing energy comprising a drum. However, Habegger teaches a wire machining apparatus including a drum from which wire is unrolled therefrom prior to machining. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of GB 2 234 208 A to include a drum from which wire is unrolled in view of the teachings of Habegger that it is old and well known in the art to provide wire stock material on a drum where said wire stock is unrolled prior to machining or manipulating said wire.

11. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breese et al. in view of Habegger.

Breese et al. discloses the basic apparatus as previously cited but does not disclose said apparatus for assembly said apparatus for absorbing energy comprising a drum. However, Habegger teaches a wire machining apparatus including a drum from which wire is unrolled therefrom prior to machining. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Breese et al. to include a drum from which wire is unrolled in view of the teachings of Habegger that it is old and well

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known in the art to provide wire stock material on a drum where said wire stock is unrolled prior to machining or manipulating said wire.

12. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art regarding energy absorbing shafts in general:

US Patent No. 5,709,605 to Riefe et al.

US Patent No. 5,375,881 to Lewis


US Patent No. 5,674,026 to Ishibashi et al.

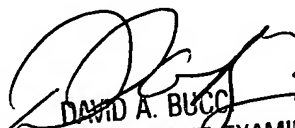
US Patent No. 3,665,778 to Bohan et al.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy P McAnulty whose telephone number is 703.308.8684. The examiner can normally be reached on Monday-Friday (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703.308.3668. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9326 for regular communications and 703.872.9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.

tpm 
September 25, 2003


DAVID A. BUCCI 9/29/03
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600